What Is Claimed Is:

1. A refractometer for measuring refractive index of a sample comprising:

a prism having an interface surface contacting said sample;

a light source for radiating light so that the light enters the prism through an entrance face of said prism and strikes said interface surface; and

an photoelectric sensor for receiving light reflected at said interface surface and entered from the prism through an exit face of said prism,

wherein said light source and said photoelectric sensor are attached to said entrance face and exit face of prism, respectively.

2. A refractometer according to claim 1 wherein said light source includes a flat light emitting face, said flat light emitting face being adhered to said entrance face of said prism.

3. A refractometer according to claim 1 wherein said photoelectric sensor adheres to said exit face of said prism.

4. A refractometer according to claim 1 having a slit extending in the direction perpendicular to the plane-of-incidence, arranged between said light source and said entrance face of said prism.

5. A refractometer comprising:

a prism having an interface surface providing the interface with a sample; and

a sample stage arranged surrounding said interface surface,

wherein said sample stage includes a non-adhesive coating.

6. A refractometer according to claim 5 wherein material of said coating includes metal and particles of fluorocarbon polymer evenly distributed therein.

7. A refractometer according to claim 6 wherein said fluorocarbon polymer is polytetrafluoroethylene.

8. A refractometer according to claim 6 wherein coating material includes 20-26 vol% fluorocarbon polymer.

9. A refractometer according to claim 6 wherein the diameter of said particles of the fluorocarbon polymer is 0.2-0.3 μm.

10. A refractometer according to claim 5 wherein said interface surface has a coating including fluorocarbon polymer.

11. A refractometer comprising:

a frame having an opening therein;

a prism arranged in said opening and having an interface surface that provides an interface with a sample;

a light source that radiates light to said interface surface; and

a sensor for receiving light from said light source reflected at said interface surface,

wherein said frame includes a sample guide face provided at a perimeter of the opening and surrounding said interface surface,

said sample guide face includes a coating including nickel and particles of fluorocarbon polymer evenly distributed therein,

said fluorocarbon polymer is polytetrafluoroethylene,

material of said coating includes 20-26 vol% fluorocarbon polymer.

said diameter of said particles of said fluorocarbon polymer is 0.2-0.3 μm and

wherein said coating is formed using electroless plating processes.

12. A refractometer in which that light is radiated from a light source to an interface surface of a prism providing the interface with a sample, light reflected at said interface surface is detected using a photoelectric sensor to measure refractive index of said sample on the basis of a signal output from said photoelectric sensor, comprising:

filter means arranged between said interface surface and said photoelectric sensor,

wherein said filter means includes a wavelength filter that selectively allows transmission of light having a wavelength within a prescribed region, including wavelengths of light of said light source.

13. A refractometer according to claim 12 wherein said wavelength filter includes

a first wavelength filter that selectively blocks light the wavelengths of which are within the region from a wavelength 50 nm longer than wavelengths of light from said light source up to a maximum wavelengths as detected by said photoelectric sensor, and

a second wavelength filter that selectively blocks light the wavelengths of which are within the region from a wavelength 30 nm shorter than wavelengths of light from said light source down to a minimum wavelengths as detected by said photoelectric sensor.

14. A refractometer according to claim 12 wherein said filter means includes a polarizer that selectively allows transmission of linearly polarized light.

15. A refractometer according to claim 14 wherein said filter means forms one integrated body, combining said wavelength filter and said polarizer laminated to each other.

16. A refractometer according to claim 12 wherein said filter means adheres to said prism by a first face and said photoelectric sensor adheres to a second face of the filter means.

17. A refractometer according to claim 12 wherein said filter means includes a light reducing filter.

18. A refractometer comprising:

a prism having a interface surface that provides an interface with a sample;

a light source that radiates light to said interface surface;

a photoelectric sensor for receiving light reflected at said interface surface;

luminous energy comparing means that compares luminous energy measured by said photoelectric sensor when said light source is not lighting with a tolerance value set in advance;

display means for displaying an error when the value for luminous energy measured when said light source is not lighting is greater than said tolerance value;

light source control means for lighting said light source when the value for luminous energy measured when said light source is not lighting is less than said tolerance value; and

refractive index calculating means for calculating refractive index from luminous energy distribution as measured by said photoelectric sensor when said light source is in a lit condition.

19. A refractometer according to claim 18 wherein said display means displays refractive index as detected by said refractive index calculating means.

20. A method for calculating refractive index using a refractometer comprising a prism having an interface surface that provides an interface with a sample, a light source that radiates light to said interface surface and a photoelectric sensor for receiving light reflected at said interface surface, this method comprising:

measuring the luminous energy distribution using said photoelectric sensor when said light source is not lighting,

comparing the luminous energy measured when said light source is not lighting with a tolerance value set in advance,

displaying an error when the value for luminous energy measured when said light source is not lighting is greater than said tolerance value,

lighting said light source and measuring the luminous energy distribution using said photoelectric sensor if the luminous energy measured when said light source is not lighting is less than said tolerance value and

calculating refractive index from luminous energy distribution measured when said light source is in a lit condition.

21. A refractometer for measuring refractive index of a sample comprising:

a prism having an interface surface contacting said sample;

a light source for radiating light from an entrance face of said prism towards said interface surface; and

an photoelectric sensor for receiving light reflected at said interface surface and directed outward from an exit face of said prism,

wherein only said prism is provided as an optical element on the optical path between said light source and said photoelectric sensor.